THE VARIABLE STAR 10, 1903 *LYRÆ.*

In No. 3857 of the *Astronomische Nachrichten,* Professor SEELIGER announces the discovery by Herr E. SILBERNAGEL of a star near the ring nebula in *Lyra* which is either variable or a *Nova.* The discovery was made from photographs taken at the Munich Observatory.

The position of this star was sufficiently near to the ring nebula to be on the negatives of the latter obtained by Professor KEELER with the Crossley reflector in 1899. Several plates were taken on July 12th, 13th and 14th, with exposures ranging from 30 seconds to two hours. On all the negatives with exposures of 30 minutes and over 10, 1903 *Lyræ* is visible as a star of 17th magnitude. There is no perceptible difference in brightness on these plates.

On April 18 and 20, 1903, two photographs were secured, with exposures of one hour each. These plates show this star as 12th magnitude.

Photographs of its spectrum were secured on April 18th, 20th, 21st, and 24th, with the small slitless-spectrograph, designed by Professor KEELER, attached to the Crossley reflector. These negatives show the hydrogen lines Hβ, Hγ, and Hδ to be bright, together with bright lines at λ 463 and λ 446. There is a very strong continuous spectrum extending from Hβ to above Hδ, and a weak spectrum in the ultra-violet.

A comparison of the spectrum of this star with that of *Nova Geminorum,* taken about the same time, shows that the hydrogen lines and λ 463 are of about the same relative intensity as in the *Nova;* while λ 446 and the continuous spectrum are very much stronger in the *Lyra* star.

A negative taken on an isochromatic plate shows, in addition, only the usual maximum at λ 570 which is characteristic of ordinary stars.

All of the facts at present known seem to indicate that the star is a variable of the well-known type in which the hydrogen lines are bright at the time of maximum, rather than a *Nova;* but some spectra of well-known variables of the type referred to will be photographed with the same instrument for purposes of comparison. C. D. P.

May 21, 1903.